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BY BILLY CLEMENTS

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The Tones Behind The Tunes!

A Guide to the Perfect Tone

Practice doesn't make perfect. Perfect practice makes perfect. I learned this a long time ago from a former guitar teacher. His advice was simple: to really nail a solo or a hot rhythm guitar part, you gotta' have the right tone. And in my quest to improve myself as a guitarist, I've found nothing to be more true; to play like the pros, you need tone like the pros.

Here's your guide to getting the great tones of this month's songs. Just dial in these settings on your GNX3 Guitar Workstation and you're on your way. If you have MIDI on your computer it's even easier. Go to www.digitech.com/guitarworld to download the presets directly into the GNX3.

Once you've got the tones, jump over to the built in multi-track recorder and lay down the rhythm tracks. Turn on the song repeat and you can practice that solo until you've got it nailed. You can also use the recorder as your portable tutor to practice this month's lessons. Just download the lesson MP3s from Guitar World's web site and take them with you. Just look for:

>>HEAR IT ONLINE: WWW.GUITARWORLD.COM

I hope the tones, playing hints, lessons and music provided here inspire you to take your playing to the next level. See you on stage.

Tone Guru Billy Clements is a 20-year veteran of the stage and studio and is a prolific creator of tones heard in countless recordings and performances around the world.

Black Label Society "Bleed for Me"

	Amp	Cabinet	Amp Level	Amp Level	Cab Tuning	Warp
Green	Mdrngain	Bout4x12	50	50	0.0	1
Red	Rectfied	Vntg4x12	50	73	0.0	–
	On/Off	Param 1	Param 2	Param 3	Param 4	Param 5
Wah - Pickup	off	–	–	–	–	–
Compression	off	–	–	–	–	–
Whammy/ IPS/Talk	off	–	–	–	–	–
Stompbox	off	–	–	–	–	–
EQ - Green	–	-3	2575	4	4100	8
EQ - Red	–	-10	650	2	4000	6
Noise Gate	on	Silencer	15	0	–	–
Chorus/Mod	off	Chorus	13	70	10	41
Delay	off	–	–	–	–	–
Reverb	off	–	–	–	–	–
Exp Assign	Exp 1	Vol Pre	0	99	–	–

The Vines "Outtathaway"

Display Name OUTTAWAY	Amp	Cabinet	Amp Level	Amp Level	Cab Tuning	Warp
Green	Cleantub	Amer2x12	20	73	0.0	1
Red	Britstak	Brit4x12	54	49	0.0	–
	On/Off	Param 1	Param 2	Param 3	Param 4	Param 5
Wah - Pickup	off	–	–	–	–	–
Compression	off	–	–	–	–	–
Whammy/ IPS/Talk	off	–	–	–	–	–
Stompbox	off	–	–	–	–	–
EQ - Green	–	-3	2500	10	5000	2
EQ - Red	–	-2	1950	12	6300	-1
Noise Gate	on	Silencer	15	0	–	–
Chorus/Mod	off	Chorus	6	70	10	29
Delay	off	–	–	–	–	–
Reverb	off	–	–	–	–	–
Exp Assign	Exp 1	Vol Pre	0	99	–	–

The Allman Brothers Band "Melissa"

Display Name MELISSA	Amp	Cabinet	Amp Level	Amp Level	Cab Tuning	Warp
Green	Acoustic	Direct	99	90	–	99
Red	Tweed	Twed1x12	55	65	0.0	–
	On/Off	Param 1	Param 2	Param 3	Param 4	Param 5
Wah - Pickup	off	–	–	–	–	–
Compression	off	–	–	–	–	–
Whammy/ IPS/Talk	off	–	–	–	–	–
Stompbox	off	–	–	–	–	–
EQ - Green	–	-3	1450	12	4400	6
EQ - Red	–	0	550	-3	3300	12
Noise Gate	on	–	–	–	–	–
Chorus/Mod	off	–	–	–	–	–
Delay	on	Mono	275	20	Of	25
Reverb	off	–	–	–	–	–
Exp Assign	Exp 1	–	–	–	–	–

Van Halen "And the Cradle Will Rock"

Display Name CRADLE	Amp	Cabinet	Amp Level	Amp Level	Cab Tuning	Warp
Green	Britstak	Brit4x12	81	42	0.0	1
Red	Rectfied	Vntg4x12	80	57	0.0	–
	On/Off	Param 1	Param 2	Param 3	Param 4	Param 5
Wah - Pickup	off	–	–	–	–	–
Compression	off	–	–	–	–	–
Whammy/ IPS/Talk	off	–	–	–	–	–
Stompbox	off	–	–	–	–	–
EQ - Green	–	-4	2100	7	5150	5
EQ - Red	–	0	2300	7	1950	5
Noise Gate	on	Silencer	15	0	–	–
Chorus/Mod	off	–	–	–	–	–
Delay	off	–	–	–	–	–
Reverb	on	Hall	5	57	38	39
Exp Assign	Exp 1	Vol Pre	0	99	–	–

Fleetwood Mac "Landslide"

Display Name LANDSLID	Amp	Cabinet	Amp Level	Amp Level	Cab Tuning	Warp
Green	Acoustic	Direct	99	90	0.0	1
Red	Cleantub	Amer2x12	20	80	0.0	–
	On/Off	Param 1	Param 2	Param 3	Param 4	Param 5
Wah - Pickup	off	–	–	–	–	–
Compression	off	–	–	–	–	–
Whammy/ IPS/Talk	off	–	–	–	–	–
Stompbox	off	–	–	–	–	–
EQ - Green	–	-3	1450	12	4400	6
EQ - Red	–	0	550	0	3200	0
Noise Gate	on	Silencer	15	0	–	–
Chorus/Mod	off	–	–	–	–	–
Delay	on	Mono	398	14	Of	35
Reverb	off	–	–	–	–	–
Exp Assign	Exp 1	Vol Pre	0	99	–	–

Van Halen "Beautiful Girls"

Display Name GIRLS	Amp	Cabinet	Amp Level	Amp Level	Cab Tuning	Warp
Green	Britstak	Bout4x12	71	60	0.0	1
Red	Rectfied	Vntg4x12	80	57	00.0	–
	On/Off	Param 1	Param 2	Param 3	Param 4	Param 5
Wah - Pickup	off	–	–	–	–	–
Compression	off	–	–	–	–	–
Whammy/ IPS/Talk	off	–	–	–	–	–
Stompbox	off	–	–	–	–	–
EQ - Green	–	1	2025	3	5200	6
EQ - Red	–	0	2300	7	1950	5
Noise Gate	on	Silencer	15	0	–	–
Chorus/Mod	off	–	–	–	–	–
Delay	off	–	–	–	–	–
Reverb	on	Hall	5	31	39	23
Exp Assign	Exp 1	Vol Pre	0	99	–	–

Van Halen "Eruption"

Display Name ERUPTION	Amp	Cabinet	Amp Level	Amp Level	Cab Tuning	Warp
Green	Britstak	Bout4x12	99	60	0.0	1
Red	Rectfied	Vntg4x12	80	57	0.0	–
	On/Off	Param 1	Param 2	Param 3	Param 4	Param 5
Wah - Pickup	off	–	–	–	–	–
Compression	on	Fast	5.0:1	28	9	–
Whammy/ IPS/Talk	off	–	–	–	–	–
Stompbox	off	–	–	–	–	–
EQ - Green	–	-5	2025	3	5200	7
EQ - Red	–	0	2300	7	1950	5
Noise Gate	on	Silencer	15	0	–	–
Chorus/Mod	on	Flange	3	11	45	40
Delay	on	Mono	370	34	30	20
Reverb	on	Hall	5	99	39	59
Exp Assign	Exp 1	Mod Mix	0	40	–	–

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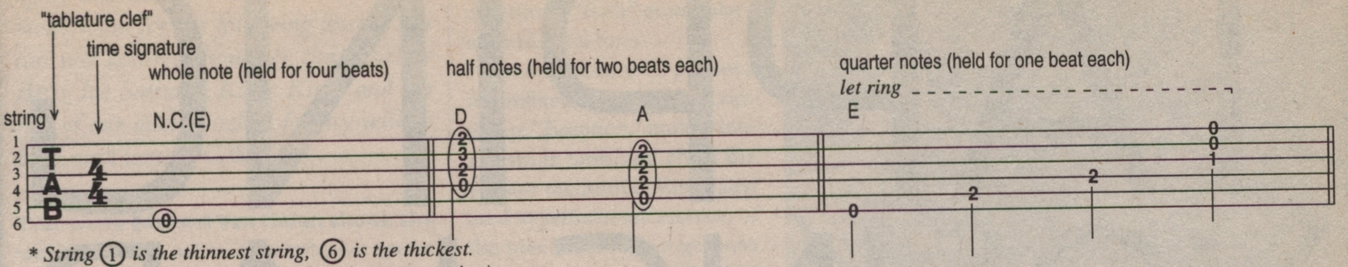
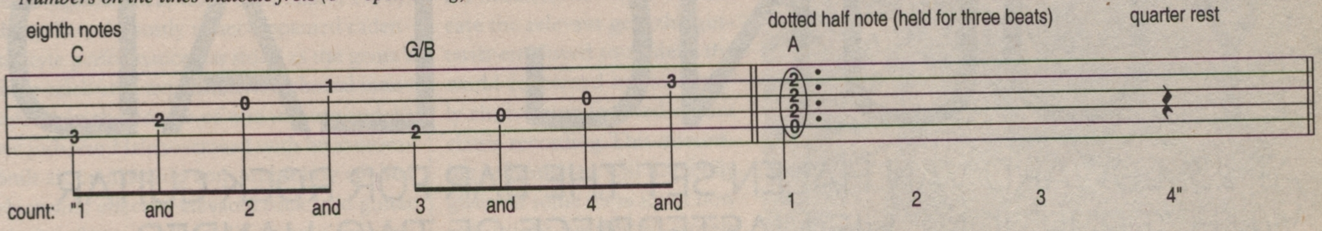
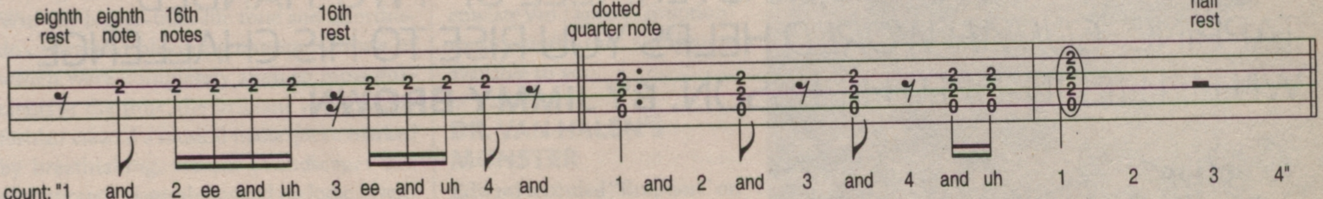
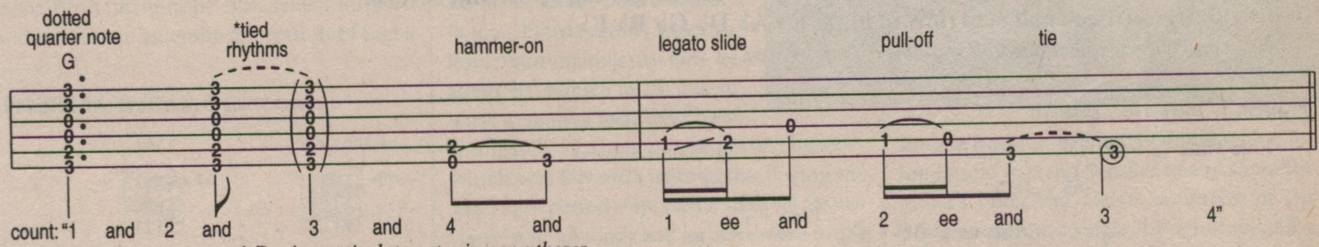
NOTATION GUIDE


"tablature clef"
time signature
whole note (held for four beats)
half notes (held for two beats each)
quarter notes (held for one beat each)
let ring
string
N.C.(E)
D
A
E
T A B
1 2 3 4 5 6

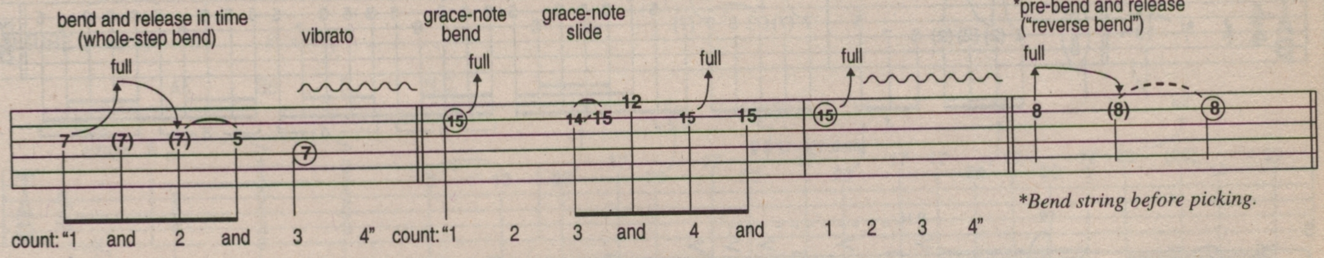
* *String ① is the thinnest string, ⑥ is the thickest. Numbers on the lines indicate frets (o = open string).*


eighth notes
C
G/B
dotted half note (held for three beats)
A
quarter rest
count: "1 and 2 and 3 and 4 and 1 2 3 4"

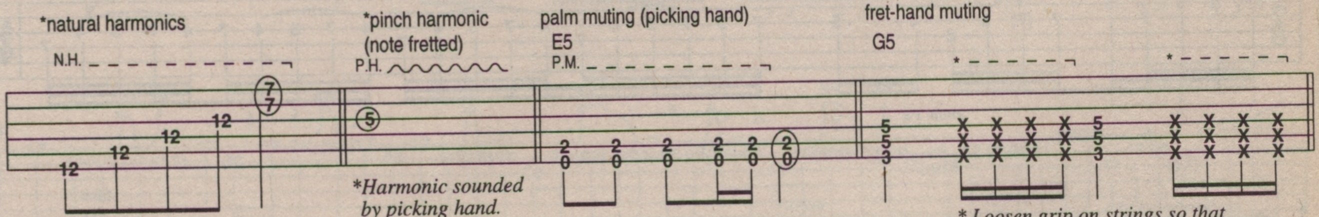

eighth rest
eighth note
16th notes
16th rest
dotted quarter note
half rest
count: "1 and 2 ee and uh 3 ee and uh 4 and 1 and 2 and 3 and 4 and uh 1 2 3 4"


dotted quarter note
G
*tied rhythms
hammer-on
legato slide
pull-off
tie
count: "1 and 2 and 3 and 4 and 1 ee and 2 ee and 3 4"

* *Don't rearticulate notes in parentheses.*


bend and release in time (whole-step bend)
full
vibrato
grace-note bend
full
grace-note slide
full
full
*pre-bend and release ("reverse bend")
full
count: "1 and 2 and 3 4"
count: "1 2 3 and 4 and 1 2 3 4"

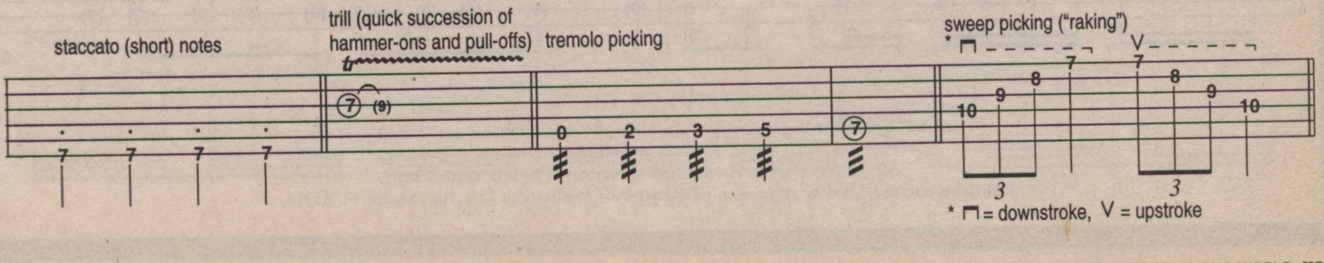
**Bend string before picking.*


*natural harmonics
N.H.
*pinch harmonic (note fretted)
P.H.
palm muting (picking hand)
E5
P.M.
fret-hand muting
G5
*

**Lightly touch string directly over fret, then pick.*

**Harmonic sounded by picking hand.*

* *Loosen grip on strings so that they no longer touch the fretboard.*


staccato (short) notes
trill (quick succession of hammer-ons and pull-offs)
tr
tremolo picking
sweep picking ("raking")
* ⊓
V
3
3

* ⊓ = downstroke, V = upstroke

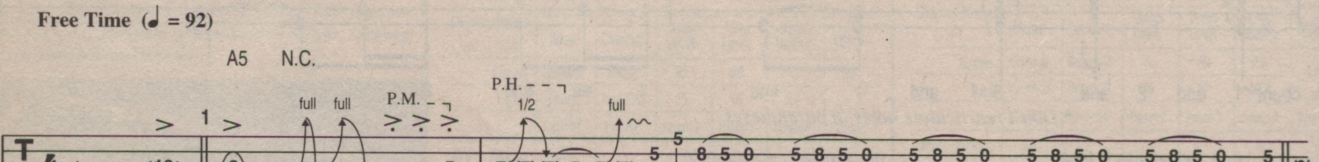
TAPPING YOUNG LAD

AT 23, EDWARD VAN HALEN SET THE BAR FOR ROCK GUITAR WITH "ERUPTION," HIS MASTERPIECE OF TWO-HANDED TAPPING. *GUITAR WORLD* HELPS YOU RISE TO HIS CHALLENGE WITH THIS IN-DEPTH LESSON. **BY JIMMY BROWN**

"Eruption"

Electric guitar (bridge pickup on) w/distortion, slow phase-shifting effect and reverb.
Tune guitar down one half step (low to high: E♭ A♭ D♭ G♭ B♭ E♭).
All notes and chords sound one half step lower than written.

FIGURE 1 **bars 1-5** (0:02-0:17)


Free Time (♩ = 92)
A5
N.C.
full
full
P.M.
P.H.
1/2
full
pitch: F♯ ⁄ G ⁄ F♯
1/2
P.H.
pitch: F♯
G
A
G
w/bar
-2 1/2
-1
-1
-1
-1 1/2
-1
fdbk.
pitch: C♯

"Eruption" by Edward Van Halen, Alex Van Halen, Michael Anthony and David Lee Roth.
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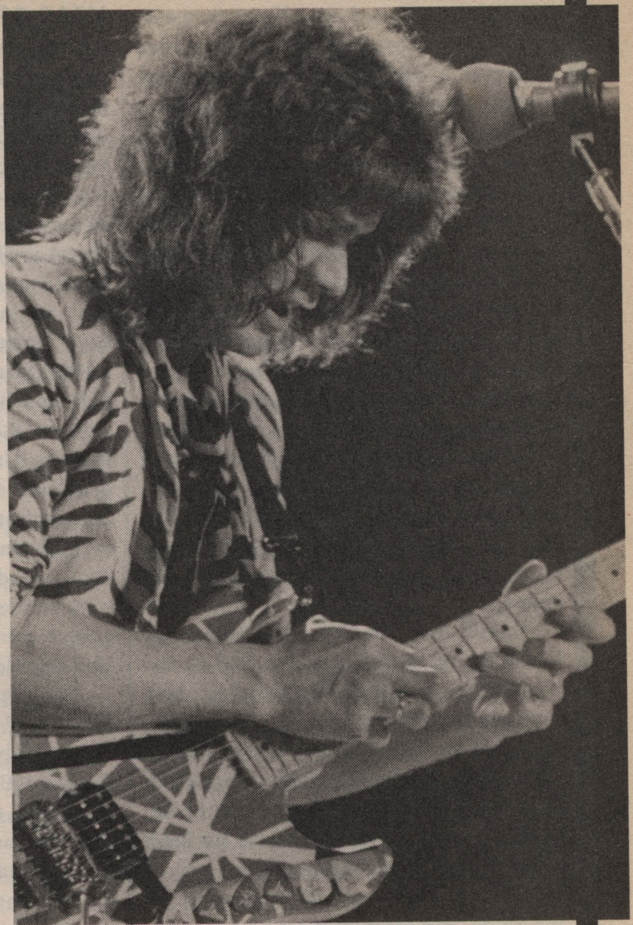
This month we pre-empt our regular line-up of instructional columns in order to make room for the following lesson. You can rest assured, however, that Dickey Betts, Joe Satriani, Kerry King and the rest of our distinguished faculty will be back next issue—GW *Ed.*

Ever since Edward Van Halen shook the world of rock with his explosive guitar extravaganza "Eruption" (*Van Halen*, 1978), the guitarist's mostly unaccompanied cadenza-style performance has stood as the genre's most celebrated expression of technical innovation. In the course of one minute and 42 seconds, Van Halen—armed with his custom-built ax, cranked-up amp and subtly applied electronic effects—elevated rock lead guitar playing from a folk tradition to a fine art. With his bigger-than-life tone and unorthodox, virtuoso playing techniques, some of which were completely alien to most guitarists at the time, the brilliant young Californian created a musical masterpiece marked by breathtaking, vibrant soundscapes and sophisticated, classical-flavored melodic inventions. With "Eruption," Van Halen inspired and influenced an entire generation of high-tech guitarists and raised the proverbial bar in terms of what constitutes "flash" guitar playing and great tone.

In this lesson we'll present a streamlined, tab-only transcription of "Eruption," broken into digestible bites, and cover the various techniques Van Halen used to perform each section of the piece. Before we get into the music, however, we'll delineate the relevant gear the guitarist employed to achieve the world-renowned and seemingly elusive tone featured on this classic recording. This interesting information will hopefully give you some ideas about how you might be able to closely emulate Van Halen's "Eruption" sound with the equipment available to you.



DR. VAN HALEN'S MONSTER

Edward recorded "Eruption" on his homemade "Frankenstein" (a.k.a., Frankenstrat) guitar, a lean, mean fighting machine he assembled himself in 1975 from what were then relatively cheap and readily available components. The ax—which was Edward's main guitar during the *Van Halen* period—sported a Charvel Stratocaster-style ash body and an extra-wide maple neck that was crafted by Lynn Ellsworth of Boogie Body Guitars and outfitted with Gibson jumbo frets and Schaller tuners. Onto the guitar's body Van Halen mounted, in the bridge position, a single P.A.F. humbucking pickup from a 1961 Gibson ES-335, the coils

FIGURE 1A fretboard patterns

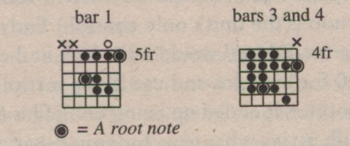
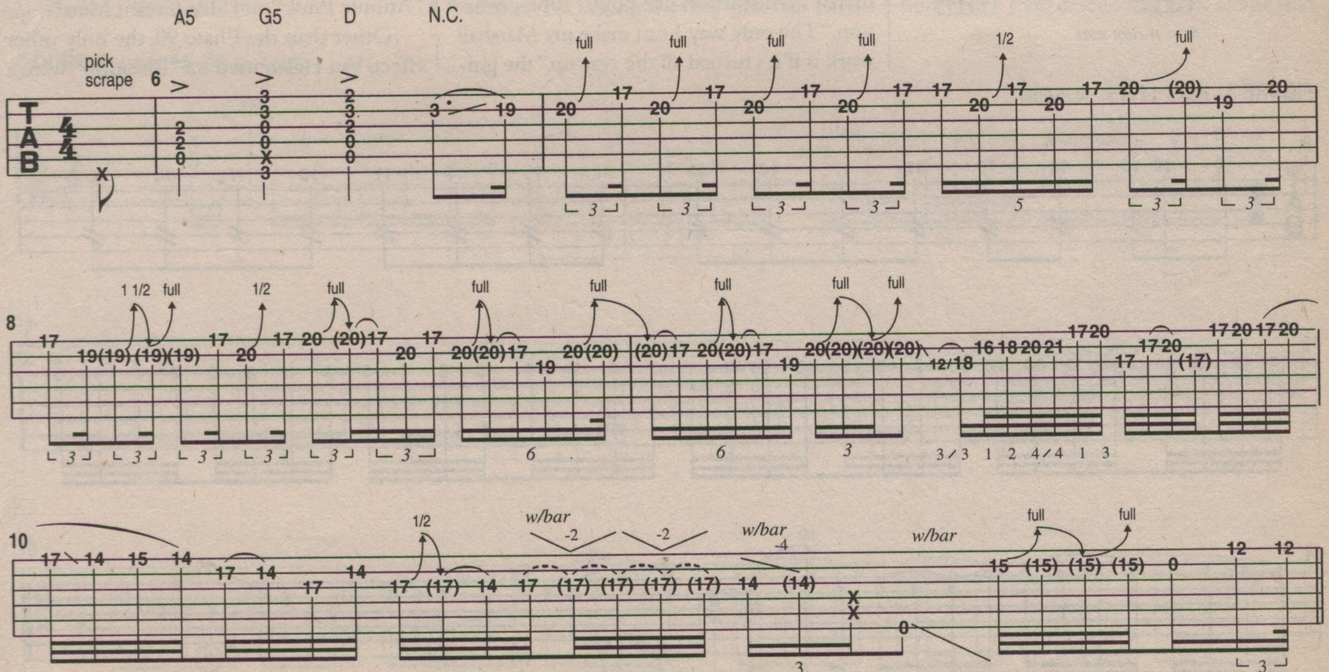


FIGURE 2 bars 6-10 (0:18-0:30)



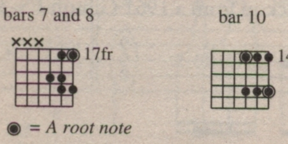
of which he rewound himself and dipped in paraffin wax to help insulate the pickup from microphonic feedback that can occur when playing with distortion at high volume. Because the guitar's body was pre-routed to house three Strat-style single-coil pickups, Edward had to remove additional wood from the angled bridge pickup slot in order for it to accommodate the much wider P.A.F. pickup.

The guitar sported a single volume control from an old Gibson Les Paul Jr. and did not have a tone control. Although Edward would later pioneer the use of the now-popular Floyd Rose tremolo bridge system in his whammy-inflected guitar solos, the Frankenstrat was equipped with a traditional Fender tremolo bridge cannibalized from a '57 Strat during the period that he recorded *Van Halen*. To help stabilize the bridge and keep the strings in tune, Edward wedged a quarter under it.

"I really felt I was on to something when I built that guitar," Van Halen told *Guitar World* a few years back. "You couldn't buy anything like it at the time."

Van Halen strung the guitar with a set of .009s (.009–.042) and tuned his strings a half step below standard tuning (low to high: Eb Ab Db Gb Bb Eb). The combination of the light strings and slackened tuning, along with a demandingly precise setup of the guitar's neck and action, gave the instrument a "sponge-y" feel with excellent "traction" that was well suited for Edward's flashy, acrobatic playing style.

FIGURE 2A fretboard patterns


bars 7 and 8

bar 10

HEAD OF THE CLASS

Another key element of Van Halen's amazing tone on "Eruption" is the way he amplified the signal from his guitar. "There's a big difference between just being loud and having what I call a warm, 'brown' sound, which is a toney sound," the guitarist once said in an early interview. "Some people get a sound like an amplified AM radio. I like it to be like a nice home stereo—the difference between tone and no tone." Van Halen's choice of amplifier for the recording of "Eruption" was a 1967 Marshall Super Lead head (#1959 SLP model), which he used to drive a Marshall 4x12 cabinet loaded with Celestion speakers. Although he has employed dozens of different amps made by Marshall and other manufacturers for his live performances over the years, Edward has reserved this particular head for the majority of his studio work because of the superlative, and perhaps unique, tone it delivers when cranked up "full throttle."

The highly coveted, vintage Marshall #1959 SLP head, commonly referred to as the "plexi" because of its Plexiglas front panel, was a 100-watt, all-tube, Non Master Volume design, equipped with three 12AX7 preamp tubes and four EL34 power tubes. The amp, which is not considered "high gain" by today's standards, sported four inputs, two separate channels (Bright and Normal) and controls for volume, bass, middle, treble and presence. To provide better ventilation for the tubes and keep them from overheating, Van Halen removed the amp's back panel.

POWER TUBE TRIP

As far as Edward Van Halen is concerned, there's no distortion like power tube distortion. "The only way I can make my Marshall work is if it's turned all the way up," the guitarist stated in one of his early interviews. To really pull that crunchy tone from the SLP's power tubes without making the amplifier unbearably loud, Edward, in one of his many strokes of genius, connected it to an Ohmite Variac transformer, a device that regulates the amount of voltage an appliance receives from 0 to 140 volts. The Variac enabled him to crank the amp's volume control to the max in order to overdrive the power tubes while enabling him to play at manageable volume levels.

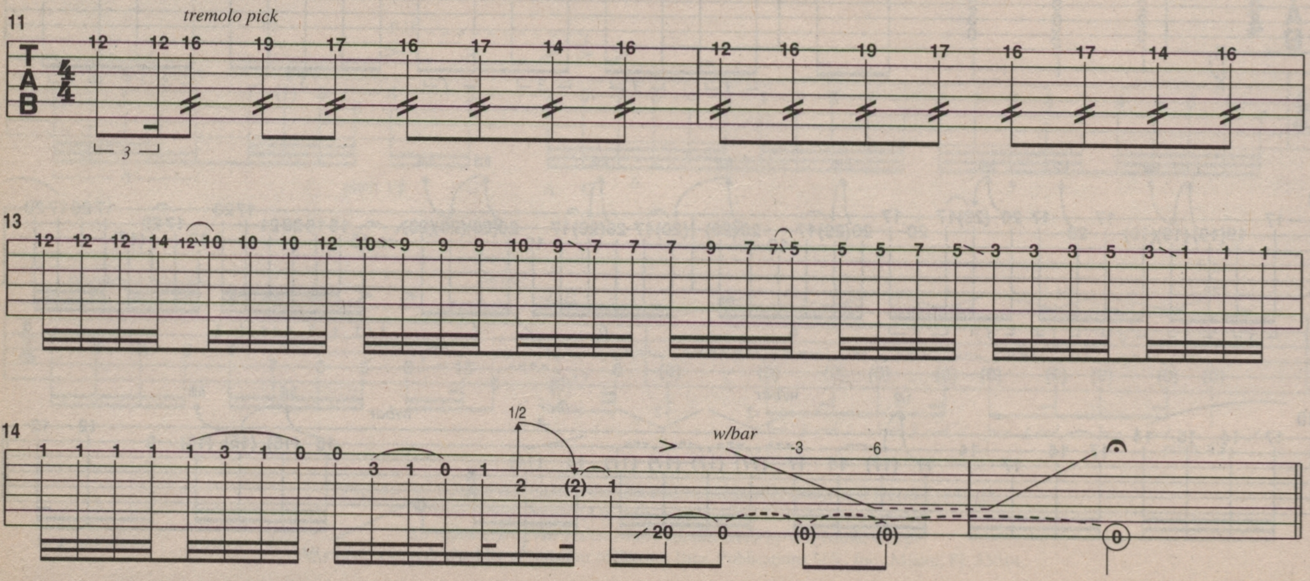
"When we played in clubs, the amp would be too loud and it would feed back," Van Halen said. "I tried using a dimmer switch to attenuate the volume, but it fried a fuse when I hooked it up to the house. So one day I went down to Radio Shack and bought a Variac, which worked great. I always used it for recording in the early days, before I started sitting in the control room with the guitar. Whenever the amp would feed back, I'd just turn it down with the Variac."

GOING THROUGH A PHASE

Although Van Halen's instrument and amplifier were certainly key factors in the creation of his "brown" sound featured on "Eruption," another crucial ingredient of his legendary sonic brew was his use of an MXR Phase 90 pedal, the speed of which he set on slow. (Aside from the on/off switch, the speed knob is the unit's only control.) Early in his career, Edward would often kick in the Phase 90 for his solos and use it as a sort of signal booster. It ended up being one of his coolest effects; it's what gave his guitar that chewy, swirling sound, as featured on "Eruption" and many other classic Van Halen tracks, like "Atomic Punk" and "Ice Cream Man."

Other than the Phase 90, the only other effects Van Halen used on "Eruption" were a

FIGURE 3 bars 11-15 (0:30-0:46)



Univox tape echo unit, which he only engaged for the octave dive-bomb that closes the piece, and some dripping-wet, cavernous plate reverb, which was added to the track in the studio.

ONE PHRASE AT A TIME

“Eruption” begins as if the piece were a rock and roll grand finale to another song. **FIGURE 1** depicts the first five bars, which are preceded on the recording by a brief drum fill played by Alex Van Halen. Edward enters with a long finger slide up and down the fretboard, performed by barring his index finger across the G and D strings. He follows this on the downbeat of the first measure with a big, fat open A5 chord, with bassist Michael Anthony doubling the root note of the chord an octave lower on bass as Alex plays a fast cymbal roll.

Edward follows this sustained A5 chord with an unusual index-finger bend, which he performs by pulling the fourth string in toward his palm—as opposed to the more conventional bending technique of pushing the string away from the palm. He repeats this move, then quickly shifts his hand up to the fifth-position A blues scale (A C D Eb E G) box pattern and fires off a salvo of lightning-fast “crammed” licks as the bass and drums come to a rest. **FIGURE 1A** illustrates the fretboard pattern Van Halen uses for this measure.

The bend on the downbeat of bar 2 is executed by pushing the G string away from the palm with the ring finger. (The middle finger may be used to help push the string.) Van Halen uses this same string-pushing technique to play all the remaining bends in “Eruption.”

Van Halen begins bar 2 with one of his signature “pinch harmonics” (indicated by the abbreviation P.H.), which he then bends up a half step. For those who are unfamiliar with the pinch harmonic technique, it is performed by first “choking up” on the pick and grabbing it near the tip, so that the thumb grazes the string as you pick it. (The technique only works with a downstroke). The harmonic is produced as a result of the thumb touching one of the harmonic node points along the string as it is picked. There are several node points along the length of each string, each generating a different harmonic, and their locations are different for each fretted note. In this case, the desired F# overtone indicated below the tablature is sounded by picking the string approximately 3.25 inches from the bridge. Of course, you’ll need to do a little bit of experimentation to find that sweet spot.

Beginning on beat two of bar 2, Van Halen employs combinations of hammer-ons and double pull-offs to create a fluid legato line. Notice the way he uses the open B note in conjunction with the fretted notes in the fifth position to add some wide intervals to the line and give it an unusual and interesting melodic contour.

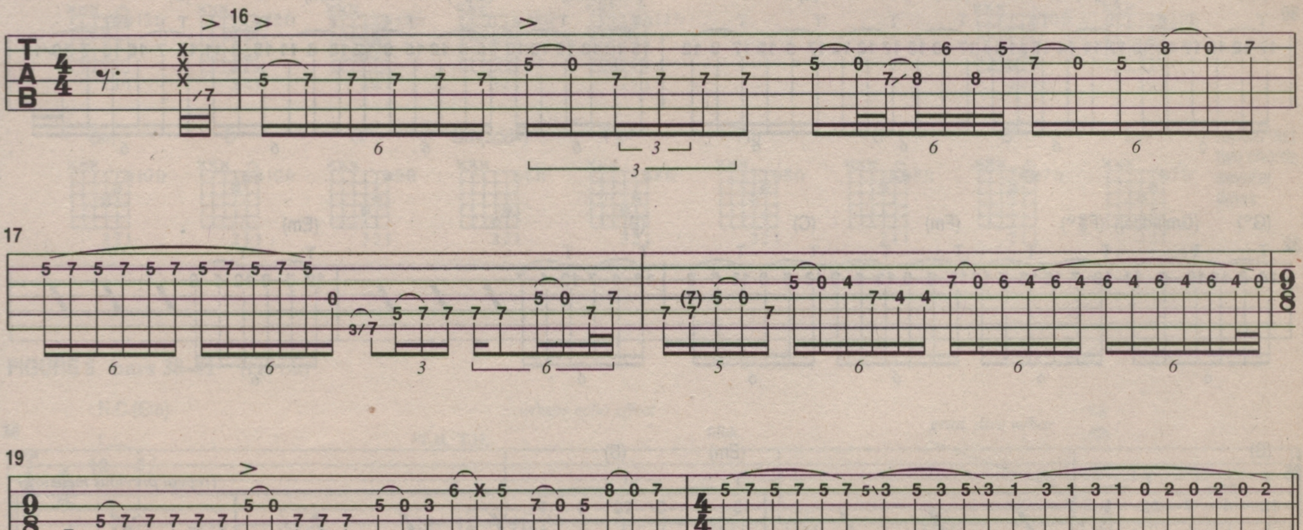
Each of the curved lines arching over a group of tab numbers indicates that only the first note under the arch is to be articulated with the pick; the remaining notes are to be sounded entirely with the left hand. A higher note on the same string is to be hammered on with another finger, such as the ring finger or pinkie; a lower note is sounded by pulling off from a higher note. This technique is a little more involved than a hammer-on, which literally involves hammering a finger onto a string. In order to keep the string vibrating when doing a pull-off, the finger actually needs to yank, or pull, the string in toward the palm slightly just before letting go of it.

Van Halen does a slight position shift on beat two of bar 3 as he reaches his index finger down to the fourth fret on the G string to play another fast hammer-on/pull-off sequence. **FIGURE 1A** illustrates the fretboard shape he employs for this bar and the one that follows. He finishes the phrase in bar 4 with a descending chromatic line on the fourth and fifth strings, picking each 16th note with a heavy downstroke. If you listen to the recording, you’ll notice how he digs in really hard with the pick here, almost sounding an artificial “pinch harmonic” with each note. To reproduce this aggressive note attack, “choke up” on the pick, holding it near the tip so that your thumb grazes the string with each downstroke.

Edward concludes this opening phrase with a quick finger slide up the neck, which he immediately follows with a deep, gut-wrenching whammy bar dive on the open low E string, executed by pressing down on the bar. Before completely “resurfacing” from the dive, he picks the open A string, with the resulting pitch being G. He holds the bar in this position for a brief moment, then releases it, restoring the pitch of the open string to A. As the note continues to ring, Van Halen proceeds to push down on the bar a few times, causing the pitch of the note to dip slightly.

FIGURE 2 shows the second phrase of “Eruption,” which commences at 0:18 on the recording. Edward kicks off this five-bar section with a long descending pick scrape that

FIGURE 4 bars 16-20 (0:47-0:57)



flows into an open A5 chord. In a bit of orchestral-style fanfare, the guitarist then proceeds to play a roaring power chord cadence (A5-G5-D) in free time, with the bass and drums accompanying on cue.

Edward follows this last bit of ensemble play at the end of bar 6 with a long finger slide up the B string to the 17th position, where he lets loose with a flurry of bend licks as the rhythm section fades away. **FIGURE 2A** illustrates the fretboard pattern he uses to play these licks.

Notice how quickly and seamlessly Van Halen alternates between the G-to-A bends at the 20th fret on the B string and the unbent A note at the 17th fret on the high E string in bar 7. The one-and-one-half-step bend at the 19th fret during beat one of bar 8 is executed by pushing the B string away from the palm with both the middle and index fingers.

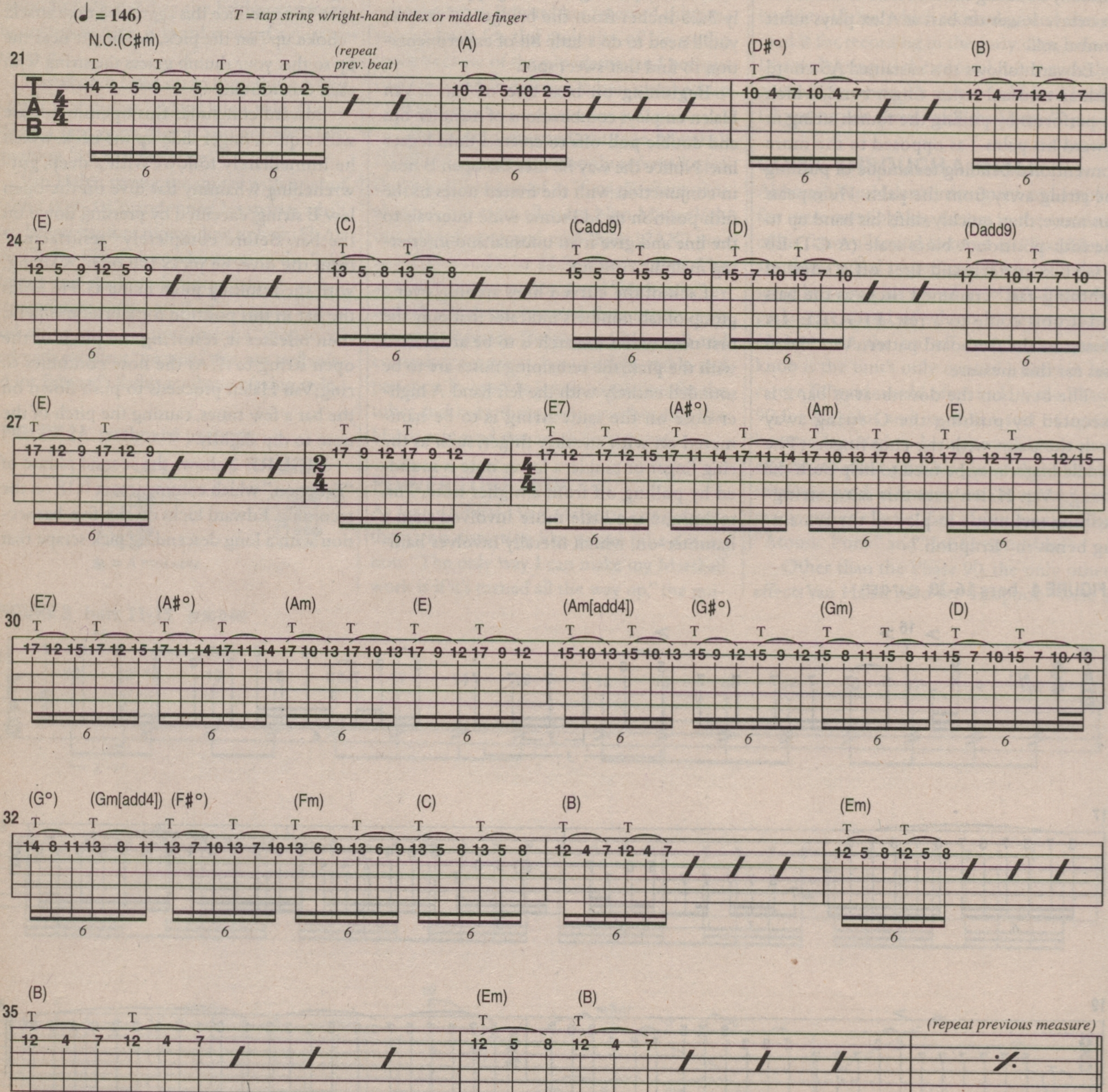
Van Halen briefly ventures outside the 17th-position box pattern during beat three of bar 9 with an atonal-flavored ascending run, using down-up alternate picking for a machine gun–like attack. To ensure a smooth transition into this lick, be sure to perform the slide from the 12th fret up to the 18th fret on beat three with the ring finger.

In bar 10, Van Halen shifts down to the 14th position via an index-finger slide, and rips out more lightning-fast–blues licks, this time using the somewhat mutated A major pentatonic box pattern depicted in **FIGURE 2A** as his fretboard template. Notice how he seamlessly combines legato hammer-ons and pull-offs with push bends and whammy bar dips to create a flowing, smoothly contoured phrase. Edward concludes this section with another deep whammy bar dive on the open low E string and a soulful D-to-E bend at the 15th fret on the B string.

PICKY, PICKY

Van Halen switches musical gears for the next five measures (bars 11–15, shown here in **FIGURE 5**), using tremolo picking to play a lyrical melodic theme on the high E string.

FIGURE 5 bars 21-37 (0:57-1:23)



During the first two bars of this section the guitarist borrows a phrase from Caprice Study #2 for Violin by Rodolphe Kreutzer, a piece he had studied as a young violin student. (Edward was also classically trained on the piano before he began playing guitar.)

For those who may be unfamiliar with this technique, tremolo picking involves rapidly rearticulating the same note with alternating pick strokes (down-up-down-up).

In bar 13 Van Halen continues tremolo picking on the high E string while gracefully descending the fretboard to the first position via a series of subtle index-finger slides. Upon reaching the first position, he seamlessly segues into some creamy legato hammer-ons and pull-offs in the first position, using the open high E and B strings in conjunction with fretted notes. Edward concludes the phrase with a quick pre-bend and release on the G string, a high finger slide up the low E string and a bowel-loosening one-octave whammy bar dive on the open E note.

FIGURE 4 illustrates the next section of "Eruption," beginning at 0:47. Returning to the familiar fifth-position A minor pentatonic box, Van Halen unleashes a tempest of notes here, combining tremolo picking with pull-offs to the open G and B strings and classical-style trills. (A trill is a rapidly repeating alternation between two notes, typically performed on the guitar on a single string, using hammer-ons and pull-offs in combination.) Notice how Van Halen strays outside the basic fifth-position A minor pentatonic box pattern in just about every measure as he adds "color" tones at the fourth and sixth frets.

PLAYING TAPS

Edward finishes this fourth phrase with a descending legato line on the B string that sets up the piece's "grand finale" two-hand tapping section, shown here in **FIGURE 5.** As you can see, Van Halen performs this passage entirely on the B string. Each tapped note, indicated by the letter T, is sounded by hammering the tip of one of the right hand's fingers onto the string just behind the fret. (This is basically the same technique as that used for a fret-hand hammer-on, except in this case the opposite hand is used.)

Van Halen often grips his pick between his thumb and middle fingers and taps with his index finger. Most guitarists, however, prefer to hold the pick between their thumb and index finger and use their middle finger for tapping. Whichever digit you choose to tap with, keep in mind that, in order to keep the string vibrating, you'll need to actually pluck it as you lift your finger off it, pulling the string away from the middle strings as you would when pulling off with the left hand.

Van Halen displays brilliance here as both a musician and composer, as he uses the two-hand tapping technique to effortlessly gallop through a complex progression of triad arpeggios, modulating through different keys in resourceful ways that would make Ludwig van Beethoven raise an eyebrow. Notice the way Van Halen signals the end of the progression by quickly moving back and forth between Em and B (the tonic and dominant chords in the key of E minor) in a way reminiscent of the conclusion of many classical pieces.

FIGURE 5A illustrates, for purposes of musical analysis and ear training, the implied chord progression and voicings produced by Van Halen's tapped arpeggio sequence, presented here as block chords on the top three strings. Listening to and studying this chord progression will help you get the sound of Van Halen's tapped arpeggio sequence implanted in your mind's ear, as well as provide you with an excellent lesson in harmony and voice leading!

Van Halen concludes this passionate, majestic piece with two successive long finger slides on the sixth string, followed by a repeated tapped harmonic at the 12th fret (see **FIGURE 6**). In order to sound and sustain the E harmonic, he taps the string directly above the 12th fret, his tapping finger outstretched and parallel to the fret.

As the second tapped harmonic rings out, the guitarist proceeds to gradually lower the note's pitch exactly one octave with his whammy bar and engages the previously mentioned tape echo effect, with the echo repeats fading into the background. GW

FIGURE 5A **implied chord progression for tapping section (bars 21-37)**

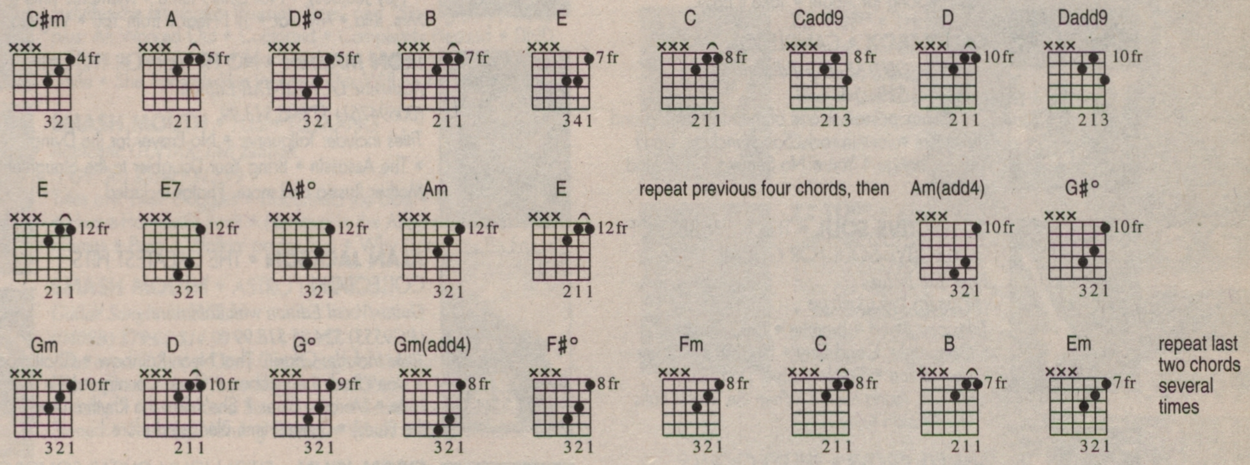
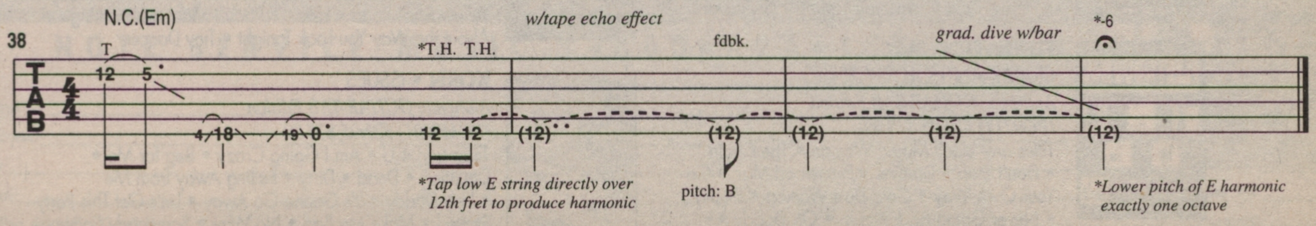


FIGURE 6 **bars 38-41** (1:24-1:42)



*Tap low E string directly over 12th fret to produce harmonic

*Lower pitch of E harmonic exactly one octave